

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

In this third non-final office action, the Examiner has withdrawn the previous grounds of multiple alternative rejections and has now set forth a new series of rejections based on the commonly-assigned WO '819 reference in view of newly-cited and applied alternative references. The Examiner alleges that WO '819 teaches all the claimed limitations with the exception that an adjustment can be done to correct a signal taking into an account the Doppler frequency or effect to counter multi-path fading. These rejections are respectfully all traversed.

As an initial procedural matter, the Kyeong reference is not prior art to the instant application. The U.S. filing date for Kyeong is October 11, 2001 which is after the July 11, 2001 filing date of the instant application. Accordingly, all rejections that rely on the Kyeong publication are improper and should be withdrawn.

Claim 1 has been amended to incorporate features of dependent claims 2 and 3. Claim 14 has been amended to incorporate features of dependent claim 15. Claim 25 has been amended to incorporate features of claims 28 and 29. Claim 39 has been amended to incorporate features from claim 44 and claim 45.

The Examiner admits that the '819 reference lacks features from the independent claims including, for example, determining an adjustment signal to reduce the delay error taken into account for a Doppler effect associated with the received signal. The Examiner applies the Sengupta reference which describes processing GPS information in a Doppler profile generator and using Doppler and multi-path profiles of a wireless path to apply diversity schemes in mobile communications. As explained in col. 4, lines 8-10, Sengupta wants to identify independent Doppler-shifted components to create Doppler diversity. But even though Sengupta

discusses using Doppler profiles, Sengupta does not disclose using a Doppler effect in the process of determining an adjustment signal to reduce the delay error as recited in each of the independent claims.

Even if the 819 reference and Sengupta were combined to take into account Doppler effects to “improve signal quality,” as the Examiner contends, that would simply mean that their combined teachings would result in a determined Doppler profile that possibly could be used to exploit Doppler diversity. That result does not teach using the Doppler effect to determine an adjustment signal to reduce a delay error between the mean CIR delay and the desired delay position.

The Examiner also relies on the commonly-assigned Teder reference which discloses a method for coherently demodulating an uplink signal in a multirate, CDMA system. Before demodulating the data signal, data rate information provided on a control channel is first demodulated to derive phase information in order to generate a reference for coherent demodulation of a data signal. The Examiner makes only general reference to columns 3-7 in Teder but never explains where or how Teder uses Doppler frequency in determining a shifting rate of a CIR search window.

Teder simply describes using a maximum Doppler frequency to determine an effective window length for use in estimating complex amplitudes of multipath rays. See col. 4, lines 62-col. 5, line 3. It is not described in Teder--nor has the Examiner explained--how a particular window length used to estimate a complex amplitude in a channel estimation process discloses using a Doppler frequency to determine a shifting rate of a searcher window to determine a shifting rate of that searcher window in order to reduce the delay error between a mean CIR delay and a desired delay position as recited, for example, in independent claim 1.

KLEIN et al.
Appl. No. 09/901,571
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The Examiner relies on a fourth reference to Ellis. But Ellis simply teaches phase modulating a continuous wave carrier with a minimum dwell time on any phase. Phase modulation has nothing to do with what is claimed or with what is disclosed in any of the '819, Sengupta, and Teder patents.

The application is in condition for allowance. An early notice to that effect is earnestly solicited.

Respectfully submitted,

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